REMARKS

This paper is responsive to the Office Action dated 06/04/2008 wherein claims 12-30 were rejected. By this paper, claim 16 has been amended. Claims 12-30 remain pending in this application. In view of the following remarks, Applicants request further examination and reconsideration of the present patent application.

35 USC 112

Applicants respectfully note the rejection of claim 16 under 35 USC 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claim 16 has been amended. The amended Claim 16 now recites t*he method of claim 12, wherein the reconstruction algorithm is a fast reconstruction algorithm such as comprising at least one of a Fourier-based algorithm, a hierarchical algorithm, or a coarse reconstruction based on downsampled projection data and/or image data.*

Therefore, Applicants respectfully request that the Examiner withdraw the rejection under 35 USC 112.

35 USC §103

Applicants respectfully traverse the rejection of claims 12-30 under 35 USC §103(a) as being unpatentable over Hiraoglu et al (US 6,026,171) (hereinafter "Hiraoglu") in view of Liang et al. (US 2003/0076988) (hereinafter "Liang"). Applicants respectfully submit that the applied references do not teach, suggest, or disclose either individually or in combination the invention as recited in claims 12-30 of the present application.

A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination.

Independent claims 12 and 29 recite in generally similar language *generating a variance*

map from measured projection data acquired from a tomography system comprising: accessing the measured projection data from the tomography system, formulating a variance measure based upon the measured projection data; and generating the variance map from the variance measure using a reconstruction algorithm. Hiraoglu fails to teach <u>generating a variance map from the measured projection data</u>. Moreover, Applicants respectfully submit that in a computed tomography system, projection data is acquired by scanning. The Applicants in the present application are not claiming the projection data as pointed out by the Examiner, rather a method for generating a variance map from the measured projection data. Further, Liang does not obviate the deficiencies of Hiraoglu reference. Although Liang discusses generating a curve for variances and means, given the raw data, it fails to teach <u>forming a variance image data or variance measures from the projection data and displaying or processing the image data that may be used to form a variance map for analysis, display or other uses.</u> (*See* Application paragraph 6 page 2.)

With regard to independent claims 21 and 30, the independent claims 21 and 30 recite in generally similar language *generating a variance map from measured projection data acquired from a tomography system comprising: accessing the measured projection data from the tomography system, formulating a variance measure based upon the measured projection data, generating the variance map based upon the variance measure using a reconstruction algorithm, and displaying analyzing or processing the variance map.* Hiraoglu fails to teach <u>generating a variance map from the measured projection data</u>, and displaying analyzing or processing the variance map as in the present application. Further, Liang does not obviate the deficiencies of the Hiraoglu reference.

With regard to independent claim 28, the claim recites inter alia *A tomography system for generating a variance map from measured projection data comprising: an X-ray source configured to project a plurality of X-ray beams through an object, a detector configured to produce a plurality of electrical signals in response to received X-ray beams from the source, and a processor configured to process the plurality of electrical signals to generate measured projection data, wherein the processor is further configured to access the measured projection data from the tomography system, to formulate a variance measure based upon the measured projection data, to generate a variance map based upon the variance measure using a reconstruction algorithm and to display, analyze or process the variance map.* The Applicants respectfully submit that the tomography system as in the present application is not cited in Hiraoglu or in combination with Liang reference. Hiraoglu fails to teach a tomography system for generating a variance map from measured projection data. Moreover, the cited references

fail to disclose a processor configured to access the measured projection data from the tomography system, to formulate a variance measure based upon the measured projection data from the tomography system, to formulate a variance measure based upon the measured projection data, to generate a variance map based upon the variance measure using a reconstruction algorithm; and to display, analyze or process the variance map. Although Hiraoglu teaches system for sheet explosive detection, bulk explosive detection, and discrimination, this is not the same as in the present application.

Claims 13-20, 22-27 depend directly or indirectly from claims 12 and 21 respectively. Accordingly, the Applicants respectfully submit that claims 13-20 and 22-27 are allowable by virtue of their dependency from the allowable base claims. Applicants also submit that the dependent claims are further allowable by the virtue of the subject matter they separately recite. Thus, it is respectfully requested that the rejection of claims 12-30 under 35 USC §103 (a) be withdrawn.

Summary

For the reasons set out above, Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration and allowance of the application are, therefore, respectfully requested.

If the Examiner believes that anything further is necessary to place the application in better condition for allowance, the Examiner is kindly asked to contact Applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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Date: October 6, 2008